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TRANSMITTAL FORM

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Total Number of Pages in This Submission: 15

Application Number	09/505,449
Filing Date	February 16, 2000
First Named Inventor	George Borden IV
Art Unit	2621
Examiner Name	Czekaj, David J.
Attorney Docket Number	7146.0045

ENCLOSURES *(check all that apply)*

- ☐ Fee Transmittal Form
  - ☐ Fee Attached
- ☐ Amendment / Reply
  - ☐ After Final
  - ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☐ Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Reply to Missing Parts/ Incomplete Application
  - ☐ Reply to Missing Parts under 37 CFR1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
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- ☐ After Allowance Communication to TC
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☒ Appeal Communication to TC (Appeal Notice, **CORRECTED Brief**, Reply Brief)
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) *(please identify below)*:
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Remarks

The enclosed APPELLANT'S CORRECTED BRIEF is being resubmitted to correct a typographical error and in answer to the Notification of Non-Compliant Appeal Brief mailed 4-30-07.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm	Chernoff Vilhauer McClung & Stenzel, LLP Suite 1600 601 S.W. Second Avenue Portland, OR 97204		
Signature			
Printed Name	Kurt Rohlfs		
Date	May 9, 2007	Reg. No.	54,405

CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Signature			
Typed or printed name	Kurt Rohlfs	Date	May 9, 2007

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	George Borden IV	Group Art Unit:	2621
Serial No.:	09/505,449	Examiner:	Czekaj, David J.
Filed:	February 16, 2000	Customer No.:	55648
Conf. No.:	5400		
Title:	METHOD OF SELECTING TARGETS AND GENERATING FEEDBACK IN OBJECT TRACKING STYSTEMS		

APPELLANT'S CORRECTED BRIEF

Chernoff, Vilhauer, McClung, and Stenzel, L.L.P.
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May 9, 2007

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

BACKGROUND

This corrected brief is in furtherance of the Notification of Non-Compliant Appeal Brief, mailed on April 30, 2007.

The fees required under 37. C.F.R. § 41.20(b)(2) were paid with the APPELLANT'S BRIEF previously submitted on March 8, 2007.

This brief comprises these subjects under the headings, and in the order, set forth below:

I. Real Party in Interest

II. Related Appeals and Interferences

III. Status of Claims

IV. Status of Amendments

V. Summary of Claimed Subject Matter

VI. Grounds for Rejection to be Reviewed on Appeal

VII. Argument

VIII. Conclusion

IX. Claims Appendix

X. Evidence Appendix

XI. Related Proceedings Appendix

The final page of this brief bears the practitioner's signature.

REAL PARTY IN INTEREST

The real party in interest in this appeal is Sharp Laboratories of America, Inc., assignee of the captioned application.

RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

A. TOTAL NUMBER OF CLAIMS IN THE APPLICATION

There are 20 claims currently pending in the application.

B. STATUS OF ALL CLAIMS

Claims canceled: 21-26, 30-32

Claims withdrawn: 27-29

Claims pending: 1-20

Claims allowed: None

Claims objected to: None

Claims rejected: 1-20

C. CLAIMS ON APPEAL

Claims 1-20 are on appeal.

A copy of the claims on appeal is set forth in the Claims Appendix to this Brief.

STATUS OF AMENDMENTS

No amendment was filed after final rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter is generally directed to a method of tracking a target object in a video system. In particular, and as claimed in independent claim 1, the claimed method may comprise the steps of: (a) initiating the object tracking system (*See* Specification at p. 7 lines 5-8); (b) automatically magnifying an image in response to initiating the object tracking system in a manner free from further user input while the object tracking system is activated (*See*

Specification at p. 7 lines 8-13); (c) selecting an object of interest in said image while the object tracking system is activated and the image is being magnified (*See* Specification at p. 7 lines 13-15; and (d) designating the object as the target of the tracking system while the image is being magnified and while the object tracking system is activated (*See* Specification at p. 7 lines 20-29), wherein the magnification is decreased automatically based upon a low confidence that the object is being tracked (See Specification at p. 9 lines 9-19).

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The grounds of rejection presented for review are whether claims 1-20 are unpatentable under 35 U.S.C. §103(a) over Abecassis, U.S. Pat. No. 5,610653, in view of Loveland, U.S. Pat. No. 6,37,819, and in further view of Lee, U.S. Patent No. 6,507,366

ARGUMENT

The Examiner rejected claims 1-20 under 35 U.S.C. § 103(a) as being obvious in view of the combination of Abecassis, Loveland, and Lee. Independent claim 1, from which the remaining pending claims depend, recites the two limitations of "automatically magnifying an image in response to initiating said object tracking system free from further user input" and "wherein said magnification is decreased automatically based upon a low confidence that said object is being said tracked." The Examiner, though conceding that the primary reference fails to disclose these limitations, contends that they are disclosed in the secondary references Lee and Loveland, respectively, and that it would be obvious to combine these secondary references with Abecassis so as to achieve the subject matter claimed. The Examiner is incorrect.

Abecassis discloses an automated tracking system in a video presentation where the video presented comprises a sequence of video frames previously captured and committed to a medium played for a viewer. One feature of Abecassis is that, if desired, a viewer may zoom in on a portion of a frame showing an object of interest and the system will automatically track that object in the center of a window zoomed in to a user-selected size. The object tracking is disclosed to be accomplished by one of two methods. In the first method, the creator of the video sequence may include, as part of the video data transmitted with the video, object identifiers along with mapping vectors that allow a system to continuously pinpoint the location of a selected object. *See* Abecassis at col. 42 lines 42-53. In the second method, the system automatically analyzes each frame for object identification indicia, such as a number on a targeted race vehicle, according to existing object detection techniques. See Abecassis at col. 42 line 55- col. 43 line3. *In both of these instances, the ability to identify the location of a user-selected object is unrelated to either the size of the viewing window, i.e. zoom level, or whether the object is even within the zoom window of the currently viewed frame.* In the first method, the system always knows the location of a chosen object because it is specifically mapped, frame by frame, by the content provider, hence there is never any need to "zoom out" to identify the location of the object or to automatically "zoom in" to allow a user to find the object. In the second method, although the user may select a zoom level for a *viewing window*, the object tracking system is only dependent on processing the pixel data for the frame, irrespective of what is being physically viewed by a user of the system. Thus, even in the circumstance where the system of Abecassis, for computational efficiency, only decodes that portion of a frame being viewed by a user, if by some happenstance a tracked object begins to move outside the frame, the solution would not be to *visually* zoom out from the size of the window specifically chosen by

the viewer, the solution would simply be to expand the area being mathematically decoded, while leaving the area of the viewing window constant, in accordance with the viewer's desires, as taught by Abecassis. See col. 41 lines 34-39. In neither circumstance would there ever be a need to depart from the viewer-chosen magnification.

A cursory review of the secondary references confirms this argument. Loveland discloses a video *camera* surveillance system where the camera may be zoomed out to reacquire a lost target being tracked, e.g. a potential shoplifter moving behind an obstruction. In that instance, the video *camera* is zoomed out, *as required*, because the only pixel information capable of being processed is that captured by the camera. In other words, if areas outside the viewing area need be examined to reacquire a lost target, the camera has to be zoomed out because there is no other way to capture the information outside of the current zoom range. This necessity is simply not present in Abecassis, where all pixel or image data has already been captured, and automatically reacquiring a lost target is simply a matter of *computationally examining* areas outside the viewing area, without the need visually display the extra area being examined.

Similarly, Lee also discloses a video camera surveillance system where a zoom *lens* is automatically adjusted to assist a user is locating an object to be tracked. This is irrelevant to the system of Abecassis, where there is no lens to be adjusted, and where the system initially displays the entire frame to a user, allowing the user to manually zoom in to an arbitrary, unpredictable user-selected window size. In fact, Abecassis specifically teaches away from automatic adjustments of the user-selected window size. See Abecassis at col. 41 lines 34-39 ("What is detailed herein, however, is a method of *automatically* maintaining the viewer defined target *within the viewer defined window* as the target moves within the image. Under control of

an application software the target *is* maintained *within the magnification of the image defined by the user.*")(emphasis added).

Therefore, the proposed combination asserted by the Examiner fails, not only because there would never be a motive to modify Abecassis as suggested by the Examiner, but also because Abecassis teaches away from automatically adjusting the viewer-selected magnification.

Therefore, the Examiner's rejection of claims 1-20 under 35 U.S.C. § 103(a) was improper and should be overturned.

CONCLUSION

The Examiner's respective rejections of claims 1-20 should be reversed, and the claims should be found patentable.

Respectfully submitted,

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CLAIMS APPENDIX

1. In a video system, a method of tracking a target object comprising the steps of:

(a) initiating said object tracking system;

(b) automatically magnifying an image in response to initiating said object tracking system free from further user input while said object tracking system is activated;

(c) selecting an object of interest in said image while said object tracking system is activated and said image is being magnified; and

(d) designating said object as said target of said tracking system and said image is being magnified while said object tracking system is activated, wherein said magnification is decreased automatically based upon a low confidence that said object is being said tracked.

2. The method of claim 1 wherein said image is magnified by adjustment of an optical lens.

3. The method of claim 1 wherein said image is magnified by adjusting an electrical signal representing, at least, a part of said image.

4. The method of claim 1 wherein said magnification is an automatic result of said step of initiating said object tracking system.

5. The method of claim 1, further comprising the step of automatically changing the scale of said image following designation of said object as said target.

6. The method of claim 1 wherein said object of interest is selected by the steps of:

(a) moving a cursor to superimpose said cursor on said object of interest in said image; and

(b) signaling said tracking system that said cursor is superimposed on said object of interest.

7. The method of claim 1 wherein said step of designating is accomplished by using a touch sensitive display.

8. The method of claim 1 wherein said step of selecting said object of interest and said step of designating said object use a control mechanism that does not magnify said image.

9. The method of claim 1 wherein said steps of selecting and designating are performed simultaneously by touching a touch sensitive display.

10. The method of claim 9 wherein in response to initiating said object tracking system, said touch sensitive display is set to simultaneously perform said selecting and designating steps upon the next touch of said touch sensitive display.

11. The method of claim 6 wherein said image is magnified by adjustment of an optical lens.

12. The method of claim 6 wherein said image is magnified by adjusting an electrical signal representing, at least, a part of said image.

13. The method of claim 6 wherein said magnification is an automatic result of said step of initiating said object tracking system.

14. The method of claim 6 further comprising the step of automatically changing the scale of said image following designation of said object as said target.

15. The method of claim 1 wherein said object of interest is selected by the steps of:

(a) moving said image to superimpose an image of a cursor on said object of interest; and

(b) signaling said tracking system that said cursor is superimposed on said object of interest.

16. The method of claim 15 wherein in response to initiating said object tracking system, a touch sensitive display is set to simultaneously perform said steps of selecting and said designating upon the next touch of said touch sensitive display.

17. The method of claim 15 wherein said image is magnified by adjustment of an optical lens.

18. The method of claim 15 wherein said image is magnified by adjusting an electrical signal representing, at least, a part of said image.

19. The method of claim 15 wherein said magnification is an automatic result of said initiating said object tracking system.

20. The method of claim 15 further comprising the stop of automatically changing the scale of said image following designation of said object as said target.

21-26 (Canceled).

27 (Withdrawn). The method of advising an operator of the performance of an object tracking system comprising the steps of:

(a) monitoring a level of confidence that said tracking system is tracking a target; and

(b) altering magnification of an image visible to said operator in response to a change in said level of confidence.

28 (Withdrawn). The method of claim 27 wherein said magnification is changed as said level of confidence decreases.

29 (Withdrawn). The method of claim 27 wherein said magnification is decreased if said object tracking system loses track of said target.

30-32 (Canceled).

EVIDENCE APPENDIX:

None.

RELATED PROCEEDINGS APPENDIX:

None.